

LNAPL Guidance Implementation

(as of March 24, 2016)

LNAPL and the MCP: Guidance for Site Assessment and Closure

Policy #WCS-16-450

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LNAPL Guidance Implementation

Questions/Issues

- 3/10/16 LSPA Training.
- Still lacking guidance on how to determine LNAPL exposure risk, particularly for emergency repair/utility workers.
- Permanent Solution in GW-1?
- Well testing for LNAPL Transmissivity (T_n) determination & case studies

LINES OF EVIDENCE MATRIX

LNAPL Guidance Implementation

Performance Standards (& Lines of Evidence to meet them)

MCP PERMANENT AND TEMPORARY SOLUTION REQUIREMENTS AND RELATED CITATIONS				
	LNAPL presence & characterization using CSM	Non-Stable LNAPL (or macro-scale mobility)	LNAPL Removal "if and to the extent feasible"	LNAPL Micro-scale Mobility and AULs
	310 CMR 40.0006, 310 CMR 40.0191(2)(b) 310 CMR 40.0483(1)5. 310 CMR 40.0835(4)(f) 310 CMR 40.1003(7)	310 CMR 40.0006 310 CMR 40.1003(7)(a) & (b)	310 CMR 40.1003(7)(a) & (b) 310 CMR 40.0860	310 CMR 40.0006, 310 CMR 40.1003(7)(a) & (b) 310 CMR 40.0860 310 CMR 40.1012(2)
LINES OF EVIDENCE	Site/release history, LNAPL type, soil type, TPH data	X	X	X
	Product Thickness Measurements (spatial and temporal)	X	XX	XX
	Pore Entry Pressure Correlations		X	
	Recovery "Decline Curve"		X	
	Transmissivity (ASTM)	X	XX	
	Comparison of TPH to Residual Saturations	X	X	
	Supporting References	X	X	X

X indicates the Line of Evidence is relevant in the evaluation of the MCP Performance Standard

XX indicates the Line of Evidence is highly relevant in the evaluation of the MCP Performance Standard



Date/age of release:

LNAPL type:

LNAPL volume:

Soil Type:

Max Soil TPH range

- ☐ Do monitoring wells adequately cover the LNAPL footprint?
Spatially: _____ wells/SF
Temporally: _____ sampling events over _____ years
Represent both High and Low water Table elevations not affected by significant rain event?
Well completion/screen through entire smear zone into GW table?
Well diameter(s): _____
- ☐ Existing soil TPH Data:
Spatially: _____ locations over _____ SF
Vertically: sample depth intervals _____
Samples in Vadose Zone? Smear Zone? GW table?
- ☐ Have CSM requirements (including LNAPL CSM) been met?
- ☐ Is the LNAPL plume stable?
Based on what Line(s) of Evidence?
- ☐ Does LNAPL with Micro-scale mobility remain?
Based on what Line(s) of Evidence?
- ☐ Has LNAPL been "removed if and to the extent feasible?"
Based on what Line(s) of Evidence?
Volume removed _____ over _____ days/months
- ☐ Is an AUL Required related to LNAPL with Micro-scale Mobility (1/2 inch or greater remaining in excavation, boring, or monitoring well)?
- ☐ Have all other MCP Source Control and risk-based closure requirements been met (including soil, groundwater and vapor phases)?

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Next Steps

- Training (ITRC on-line & live, ASTM Tn)
- Western Mass LSPA Training TBD
- Future Regulation/Guidance Changes
- New ITRC Team – “LNAPL Update”

<http://www.itrcweb.org/Team/Public?teamID=73>



Questions?

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**END OF LNAPL
GUIDANCE
IMPLEMENTATION
PRESENTATION
3/24/16**

